

**Flood Control Project Maintenance  
Levee Inspections**

**Fall 2016 Levee Maintenance Deficiency Summary Report**

**Overall LMA & Unit Ratings, including DWR Erosion Survey**

***San Joaquin River Basin***

<b>RD2101</b>	Overall LMA Rating	Total LMA Miles						
<b>Reclamation District No. 2101 Blewett</b>	<b>M</b>	<b>3.46</b>						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
<i>Earthen Levee</i>								
Vegetation	0.01		0.01	0.29%				
Encroachments					1.31			
Animal Control	0.06	0.01	0.10	2.89%				
Erosion / Bank Caving	0.01		0.01	0.29%				
Crown Surface / Depressions / Rutting	0.13		0.13	3.76%				
<i>Supplemental</i>								
DWR Erosion Survey		0.08	0.32	9.26%				
DWR UCIP Field Study					0.05	0.02		
<i>LMA Totals:</i>	0.21	0.09	0.57	16.49%	1.36	0.02	0.00	0.00

<b>Unit No. 01 San Joaquin River LB</b>	Overall Unit Rating	Total Unit Miles						
<b>RD2101</b>	<b>M</b>	<b>3.16</b>						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
<i>Earthen Levee</i>								
Vegetation	0.01		0.01	0.32%				
Encroachments					1.31			
Animal Control	0.06	0.01	0.10	3.17%				
Erosion / Bank Caving	0.01		0.01	0.32%				
Crown Surface / Depressions / Rutting	0.13		0.13	4.12%				
<i>Supplemental</i>								
DWR Erosion Survey		0.08	0.32	10.14%				
DWR UCIP Field Study					0.05	0.02		
<i>Unit Totals:</i>	0.21	0.09	0.57	18.05%	1.36	0.02	0.00	0.00

<b>Unit No. 02 San Joaquin River (Spur Levee) RB</b>	Overall Unit Rating	Total Unit Miles						
<b>RD2101</b>	<b>A</b>	<b>0.30</b>						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
No Items								
<i>Unit Totals:</i>	0.00	0.00	0.00	0.00%				

**Flood Control Project Maintenance  
Levee Inspections**  
**LMA District Cover Sheet**  
**Fall 2016 Levee Inspection Results**

**Reclamation District No. 2101 Blewett**

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)
† Overall LMA Rating (Fall Only)			M	

\*\* Non-receipt of Summer or Winter Inspection  
Reports may effect overall annual rating.

† SPRING INSPECTIONS: Overall maintenance ratings are not determined for the spring inspection results. Individual maintenance deficiencies are rated using the same criteria in the spring and in the fall.

FALL INSPECTIONS: The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports. This rating is not intended to be an indication of risk.

Comments


**Flood Control Project Maintenance  
Levee Inspections**

**Unit Cover Sheet**

**Fall 2016 Levee Inspection Results**

**Reclamation District No. 2101 Blewett**

Waterway			Bank	Unit Miles
Unit No. 01 San Joaquin River			Left	3.16
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			<b>M</b>	
Date of Inspection	3/24/2016 - 3/24/2016		9/20/2016 - 9/20/2016	
DWR Inspector	Maksim Khashchuk		Maksim Khashchuk	
Accompanied By	Jim Coddington RD2101		Jim Coddington RD2101	

**Summer & Winter Inspections**

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

<http://cdec.water.ca.gov/lma.html>

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

*The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.*

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2101 Blewett**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	3.16	09/20/2016 09/20/2016	Maksim Khashchuk

LM Start		Rating **	A	Issue No.	2	
LM End		Issue Type +	Ma	Location *	N/A	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Operations & Maintenance Manuals				o	
					o	
DWR ID	DWR_RD2101_01_s_2013_2					
Comment Code						
Inspector Comment						
The LMA has the O&M Manual available electronically.						

Photo 1 of 1 : FA\_2016\_RD2101\_326\_2\_20160914\_00004.jpg



View of the O&amp;M manual and other documentation.

LM Start		Rating **	A	Issue No.	4
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Emergency Supplies & Equipment				o
					o
DWR ID	DWR_RD2101_01_s_2013_4				
Comment Code					
Inspector Comment					
LMA has emergency supplies on site at the warehouse.					

Photo 1 of 2 : FA\_2016\_RD2101\_326\_4\_20160926\_00037.jpg



View of the emergency flood fight supplies in the shop.

LM Start		Rating **	A	Issue No.	4 (cont)
LM End		Issue Type +	Ma	Location *	N/A

Photo 2 of 2 : FA\_2016\_RD2101\_326\_4\_20160926\_00038.jpg



Another view of the emergency flood fight supplies in the shop.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown		<b>** Rating</b> A : Acceptable                      N : Not Inspected/Rated M : Minimally Acceptable        C : Corrected U : Unacceptable                  A/W : Acceptable but Monitor & Maintain		<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	--	---	--	---

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2101 Blewett**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	3.16	09/20/2016 09/20/2016	Maksim Khashchuk

LM Start		Rating **	A	Issue No.	5	
LM End		Issue Type +	Ma	Location *	N/A	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Flood Preparedness & Training				°	
					°	
DWR ID	DWR_RD2101_01_s_2013_5					
Comment Code						
Inspector Comment						
LMA is current on flood fight training.						

No Photos

LM Start	0.04	Rating **	M	Issue No.	12
LM End	0.04	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.657648 °	37.657648 °
				-121.253812 °	-121.253812 °
DWR ID	DWR_RD2101_01_s_2012_12				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					
LMA is actively exterminating rodents in this area.					

Photo 1 of 1 : FA\_2016\_RD2101\_326\_12\_20160914\_00007.jpg



View of the rodent holes on the waterside levee slope, facing upstream.

**\* Location**

LS : Land Side    N/A : Not Applicable  
WS : Water Side  
CR : Crown

**\*\* Rating**

A : Acceptable                      N : Not Inspected/Rated  
M : Minimally Acceptable        C : Corrected  
U : Unacceptable                  A/W : Acceptable but Monitor & Maintain

**+ Issue Type**

Ma : Maintenance Deficiency  
Ob : Design & System Obsolescence  
En : Enforcement

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2101 Blewett**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	3.16	09/20/2016 09/20/2016	Maksim Khashchuk

LM Start	0.05	Rating **	U	Issue No.	950
LM End	0.05	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.657801 °	37.657801 °
				-121.253745 °	-121.253745 °
DWR ID					

**Comment Code**

**Inspector Comment**

FS\_ID:50759  
DS\_ID:20699  
EP\_NO: N/A  
Repair Type: Urgent  
Crossing Status: Found  
UCIP Comments: 11/16/2016 Dense vegetation prevents access to crossing. Recommend removing vegetation along pipe alignment and both concrete headwalls to conduct proper inspection of structure. (O. Magana - DWR UCIP)09/17/2013 Slide gate missing from WS toe.  
Pipe has heavy sediment buildup. (W. Wylie - DWR UCIP)  
FIELD\_STRUCT\_DESC: 18-inch corrugated metal drainage pipe through levee, 3 feet below crown. Concrete headwalls are located on both the waterside (WS) and landside (LS) ends. Slide gate at headwall is located on the WS end. [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin River O&M Manual Unit No. 12, December 1968, (HLM 0.05), Drawing No. 07-04-1666, sheets 1666/18 and 1666/52, station 00+70.]  
FS Date: 11/16/2016

LM Start	<b>0.05</b>	Rating **	U	Issue No.	<b>950 (cont)</b>
LM End	<b>0.05</b>	Issue Type +	En	Location *	WS

Photo 1 of 2 : UCIP\_FA\_2016\_50759\_47962.jpg



Headwall on WS toe.

Photo 2 of 2 : UCIP\_FA\_2016\_50759\_47961.jpg



Pipe and headwall visible on LS toe.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	<b>N : Not Inspected/Rated</b> C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	--	--	---



**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2101 Blewett**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	3.16	09/20/2016 09/20/2016	Maksim Khashchuk

LM Start	0.07	Rating **	M	Issue No.	18
LM End	0.07	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.657831 °	37.657831 °
				-121.253361 °	-121.253361 °
DWR ID	DWR_RD2101_01_f_2016_18				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Arundo on WS slope.					

Photo 1 of 1 : FA\_2016\_RD2101\_326\_18\_20160926\_00039.jpg



View of the arundo on the waterside levee slope.

LM Start	0.08	Rating **	C	Issue No.	16
LM End	0.08	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.657811 °	37.657811 °
				-121.253269 °	-121.253269 °
DWR ID	DWR_RD2101_01_s_2013_16				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					
Continue rodent extermination and backfilling the rodent burrows.					

No Photos

**\* Location**  
LS : Land Side    N/A : Not Applicable  
WS : Water Side  
CR : Crown

**\*\* Rating**  
A : Acceptable                      N : Not Inspected/Rated  
M : Minimally Acceptable        C : Corrected  
U : Unacceptable                  A/W : Acceptable but Monitor & Maintain

**+ Issue Type**  
Ma : Maintenance Deficiency  
Ob : Design & System Obsolescence  
En : Enforcement

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2101 Blewett**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	3.16	09/20/2016 09/20/2016	Maksim Khashchuk

LM Start	0.31	Rating **	M	Issue No.	945
LM End	0.31	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.658142 °	37.658142 °
				-121.250047 °	-121.250047 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:20785					
DS_ID:20701					
EP_NO: N/A					
Repair Type: Non-Urgent					
Crossing Status: Found					
UCIP Comments: Inlet blocked by soil from beaver activity. Outlet covered in soil.					
FIELD_STRUCT_DESC: 24-inch corrugated metal pipe through levee 21.0 feet below crown. Headwall and slide gate on the landward end. Concrete "U" headwall and flap gate on the waterward end. Originally included in the 1968 O&M manual.					
FS Date: 9/19/2013					

Photo 1 of 2 : UCIP\_FA\_2016\_20785\_35046.jpg



Slide gate at concrete headwall on LS toe.

LM Start	<b>0.31</b>	Rating **	M	Issue No.	<b>945 (cont)</b>
LM End	<b>0.31</b>	Issue Type +	En	Location *	LS

Photo 2 of 2 : UCIP\_FA\_2016\_20785\_35045.jpg



Slide gate at concrete headwall on LS toe.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	---	---



## Reclamation District No. 2101 Blewett

No Photos

View of the rodent burrows on the waterside levee slope.

Concrete ditch near landside toe.

Page 6 of 19

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2101 Blewett**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	3.16	09/20/2016 09/20/2016	Maksim Khashchuk

LM Start	0.78	Rating **	M	Issue No.	20
LM End	0.78	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.659436 °	37.659436 °
				-121.242965 °	-121.242965 °
DWR ID	DWR_RD2101_01_f_2016_20				
Comment Code					
A1 : Exterminate rodents and backfill and compact or grout burrows.					
Inspector Comment					

No Photos

LM Start	0.86	Rating **	M	Issue No.	21
LM End	0.86	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.658715 °	37.658715 °
				-121.241945 °	-121.241945 °
DWR ID	DWR_RD2101_01_f_2016_21				
Comment Code					
A1 : Exterminate rodents and backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : FA\_2016\_RD2101\_326\_21\_20160926\_00041.jpg



View of the rodent hole on the landside slope.

LM Start	0.94	Rating **	M	Issue No.	22
LM End	0.95	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.657875 °	37.657622 °
				-121.241209 °	-121.241187 °
DWR ID	DWR_RD2101_01_f_2016_22				
Comment Code					
A1 : Exterminate rodents and backfill and compact or grout burrows.					
Inspector Comment					

No Photos

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown		<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable		<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
		N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain			

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2101 Blewett**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	3.16	09/20/2016 09/20/2016	Maksim Khashchuk

LM Start	1.02	Rating **	N	Issue No.	33
LM End	1.02	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.656745 °	37.656745 °
				-121.241104 °	-121.241104 °
DWR ID	DWR_RD2101_01_f_2014_33				
Comment Code					
T5 : Tree stumps.					
Inspector Comment					

Photo 1 of 1 : FA\_2016\_RD2101\_326\_33\_20160914\_00015.jpg



View of the tree stump at the waterside levee toe.

LM Start	1.59	Rating **	M	Issue No.	14
LM End	1.59	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.651554 °	37.651554 °
				-121.234319 °	-121.234319 °
DWR ID	DWR_RD2101_01_s_2012_14				
Comment Code					
PO : Pole					
Inspector Comment					
Pole needs to be permitted or moved outside of levee easement.					

No Photos

LM Start	1.62	Rating **	C	Issue No.	23
LM End	1.76	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.651550 °	37.651009 °
				-121.233846 °	-121.231368 °
DWR ID	DWR_RD2101_01_f_2016_23				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					
LMA dragged the levee slopes and removed vegetation.					

No Photos

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	--	---	---

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2101 Blewett**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	3.16	09/20/2016 09/20/2016	Maksim Khashchuk

LM Start	1.86	Rating **	U	Issue No.	1
LM End	1.95	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR Erosion Survey			37.650259 °	37.650259 °
				-121.228961 °	-121.228961 °
DWR ID					

**Comment Code**

**Inspector Comment**

07/12/2016: No significant change observed.  
 08/19/2015: No significant change observed.  
 07/17/2014: No significant change observed.  
 09/20/2013: Site has been visited. There are signs of further erosion development along the levee slope and toe.  
 07/18/2012: The erosion has further developed toward levee crown. Vegetation has been removed.  
 08/18/2011: The erosion progressed significantly during the past flood season. The levee toe along the erosion site was washed away, and the erosion has cut the levee structure up to the point about 1/3 of the levee slope. The scarp height is approximately 17 feet. Very dense vegetation and trees are visible.  
 10/19/2010: No significant change observed on site. Remaining levee berm topsoil is of silty sand mixture. The erosion is near the downstream transition. An eddy has formed, and has scoured away a 100-foot section of the bank, possibly encroaching into the levee prism. Vegetation on site includes willows, oak, and cotton wood located from the bench to the toe. On the landside are rows of corn crop.  
 08/05/2010: Recommended for Repair, per CLRO.  
 2009: Site recommended as annual assessment and monitoring if critical erosion site, per CLRO CES Evaluation 2008 Report; an eddy has formed, eroding bank and intruding into the levee prism; Site # is the same as RM76.3, LM1.89; previously rated "U".  
 08/30/2007: Recommended for short list of immediate repair sites; silty sand levee material. [2016 Site ID:RD2101U01RM73.92]

LM Start	<b>1.86</b>	Rating **	<b>U</b>	Issue No.	<b>1 (cont)</b>
LM End	<b>1.95</b>	Issue Type +	<b>Ma</b>	Location *	<b>WS</b>

Photo 1 of 3 : SJR2016\_RD2101U01RM73.92\_1.jpg



Upstream view of the erosion.

Photo 2 of 3 : SJR2016\_RD2101U01RM73.92\_2.jpg



Looking at the erosion from the levee top.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown		<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
--	--	---	--	---	--



**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2101 Blewett**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	3.16	09/20/2016 09/20/2016	Maksim Khashchuk

LM Start	1.86	Rating **	U	Issue No.	1 (cont)	
LM End	1.95	Issue Type +	Ma	Location *	WS	
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR Erosion Survey			37.650259 °	37.650259 °	
				-121.228961 °	-121.228961 °	
DWR ID						
Comment Code						
Inspector Comment						
07/12/2016: No significant change observed.						
08/19/2015: No significant change observed.						
07/17/2014: No significant change observed.						
09/20/2013: Site has been visited. There are signs of further erosion development along the levee slope and toe.						
07/18/2012: The erosion has further developed toward levee crown. Vegetation has been removed.						
08/18/2011: The erosion progressed significantly during the past flood season. The levee toe along the erosion site was washed away, and the erosion has cut the levee structure up to the point about 1/3 of the levee slope. The scarp height is approximately 17 feet. Very dense vegetation and trees are visible.						
10/19/2010: No significant change observed on site. Remaining levee berm topsoil is of silty sand mixture. The erosion is near the downstream transition. An eddy has formed, and has scoured away a 100-foot section of the bank, possibly encroaching into the levee prism. Vegetation on site includes willows, oak, and cotton wood located from the bench to the toe. On the landside are rows of corn crop.						
08/05/2010: Recommended for Repair, per CLRO.						
2009: Site recommended as annual assessment and monitoring if critical erosion site, per CLRO CES Evaluation 2008 Report; an eddy has formed, eroding bank and intruding into the levee prism; Site # is the same as RM76.3, LM1.89; previously rated "U".						
08/30/2007: Recommended for short list of immediate repair sites; silty sand levee material. [2016 Site ID:RD2101U01RM73.92]						

Photo 3 of 3 : SJR2016\_RD2101U01RM73.92\_4.jpg



Close view of the erosion. Levee crest is approximately 8 feet above the erosion.

LM Start	1.97	Rating **	C	Issue No.	24
LM End	2.12	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.649923 °	37.648689 °
				-121.227935 °	-121.225648 °
DWR ID	DWR_RD2101_01_f_2016_24				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					
LMA removed tall vegetation from levee slope.					

No Photos

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	--	---	---



**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2101 Blewett**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	3.16	09/20/2016 09/20/2016	Maksim Khashchuk

LM Start	2.19	Rating **	C	Issue No.	25
LM End	2.23	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.647751 °	37.647174 °
				-121.225246 °	-121.225082 °
DWR ID	DWR_RD2101_01_f_2016_25				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

LM Start	2.34	Rating **	C	Issue No.	30
LM End	2.46	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.645948 °	37.644672 °
				-121.226105 °	-121.227693 °
DWR ID	DWR_RD2101_01_f_2016_30				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

LM Start	2.52	Rating **	C	Issue No.	13
LM End	2.52	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.644120 °	37.644120 °
				-121.228474 °	-121.228474 °
DWR ID	DWR_RD2101_01_s_2016_13				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

No Photos

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	--	---	---

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2101 Blewett**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	3.16	09/20/2016 09/20/2016	Maksim Khashchuk

LM Start	2.71	Rating **	M	Issue No.	946
LM End	2.71	Issue Type +	En	Location *	CR
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.641976 °	37.641976 °
				-121.229745 °	-121.229745 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:20865 DS_ID:20711 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Pipe leaking at pipe/concrete connection on WS slope. FIELD_STRUCT_DESC: 2 of 3: 20-inch steel pipe through levee 10.0-feet below crown encased in concrete. Pump on steel pier on WS. Gate valve in 16'X7' concrete vault on WS shoulder. Pipes discharge into concrete canal on LS toe. Originally included in the 1968 O&M manual. FS Date: 9/19/2013					

Photo 1 of 2 : UCIP\_FA\_2016\_20865\_35110.jpg



Pump on metal pier on WS.

LM Start	<b>2.71</b>	Rating **	M	Issue No.	<b>946 (cont)</b>
LM End	<b>2.71</b>	Issue Type +	En	Location *	CR

Photo 2 of 2 : UCIP\_FA\_2016\_20865\_35109.jpg



Gate valve in concrete vault on WS shoulder.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	---	---

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2101 Blewett**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	3.16	09/20/2016 09/20/2016	Maksim Khashchuk

LM Start	2.72	Rating **	M	Issue No.	949
LM End	2.72	Issue Type +	En	Location *	CR
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.641798 °	37.641798 °
				-121.229714 °	-121.229714 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:22915					
DS_ID:24679					
EP_NO: N/A					
Repair Type: Non-Urgent					
Crossing Status: Found					
UCIP Comments: 09/26/2016 - (T. Hatch/UCIP) Inspector indicated that pipe had been removed for several years. Need additional information to determine if the pipe was removed properly and the levee recompacted to specifications.					
09/19/2013 - (W. Wylie/UCIP) No permit identified for this crossing.					
FIELD_STRUCT_DESC: *REMOVED* 18-inch PVC irrigation pipe through the levee 3.5-feet below the crown. No pump or other appurtenances visible.					
FS Date: 9/19/2013					

Photo 1 of 2 : UCIP\_FA\_2016\_22915\_39043.jpg



18-inch PVC pipe visible at LS slope.

LM Start	<b>2.72</b>	Rating **	M	Issue No.	<b>949 (cont)</b>
LM End	<b>2.72</b>	Issue Type +	En	Location *	CR

Photo 2 of 2 : UCIP\_FA\_2016\_22915\_39042.jpg



18-inch PVC pipe visible at outlet to irrigation canal on LS slope.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	---	---

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2101 Blewett**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	3.16	09/20/2016 09/20/2016	Maksim Khashchuk

LM Start	2.82	Rating **	U	Issue No.	951
LM End	2.82	Issue Type +	En	Location *	CR
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.640566 °	37.640566 °
				-121.230216 °	-121.230216 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:50760 DS_ID:20705 EP_NO: N/A Repair Type: Urgent Crossing Status: Found UCIP Comments: 11/16/2016 No access available. Need to coordinate with LMA to obtain access for proper inspection at a later date. (O. Magana - DWR UCIP)09/19/2013 Flap gate missing from WS headwall. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 24-inch corrugated metal drain pipe through levee, 11 feet below crown. Concrete "U" headwall on both waterside (WS) and landside (LS) ends. Flap gate is located on the WS end. [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin River O&M Manual Unit No. 12, December 1968, (HLM 2.85), Drawing No. 07-04-1666, sheets 1666/13 and 1666/51, station 421+30] FS Date: 11/16/2016					

LM Start	<b>2.82</b>	Rating **	U	Issue No.	<b>951 (cont)</b>
LM End	<b>2.82</b>	Issue Type +	En	Location *	CR

Photo 1 of 2 : UCIP\_FA\_2016\_50760\_35142.jpg



Concrete headwall visible at LS toe in ditch.

Photo 2 of 2 : UCIP\_FA\_2016\_50760\_35141.jpg



Concrete headwall visible on WS toe at canal.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	--	---	---



**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2101 Blewett**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	3.16	09/20/2016 09/20/2016	Maksim Khashchuk

LM Start	2.83	Rating **	U	Issue No.	27
LM End	2.83	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.640425 °	37.640425 °
				-121.230139 °	-121.230139 °
DWR ID	DWR_RD2101_01_s_2012_27				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					
Burrows on both sides of levee. Backfill the burrows to restore the levee to original condition.					

Photo 1 of 1 : FA\_2016\_RD2101\_326\_27\_20160914\_00011.jpg



View of multiple rodent holes on the levee slope.

LM Start	2.85	Rating **	M	Issue No.	947
LM End	2.85	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.640185 °	37.640185 °
				-121.230067 °	-121.230067 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:20873 DS_ID:20706 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Leaks off LS toe may indicate internal failure. Good candidate for video inspection. FIELD_STRUCT_DESC: 1 of 2: 24-inch concrete irrigation pipe through levee 11.0 feet below crown. Pump on metal pier at WS berm. Screw gates in 6'X10.5' concrete box on waterward side. 12-inch steel riser next to concrete box with slide gates. Abandoned pump house on waterward side. Originally included in the 1968 O&M manual. FS Date: 9/19/2013					

Photo 1 of 2 : UCIP\_FA\_2016\_20873\_35146.jpg



Leak in pipe off LS toe.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	<b>N : Not Inspected/Rated</b> C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	--	--	---



**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2101 Blewett**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	3.16	09/20/2016 09/20/2016	Maksim Khashchuk

LM Start	2.85	Rating **	M	Issue No.	947 (cont)
LM End	2.85	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.640185 °	37.640185 °
				-121.230067 °	-121.230067 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:20873 DS_ID:20706 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Leaks off LS toe may indicate internal failure. Good candidate for video inspection. FIELD_STRUCT_DESC: 1 of 2: 24-inch concrete irrigation pipe through levee 11.0 feet below crown. Pump on metal pier at WS berm. Screw gates in 6'X10.5' concrete box on waterward side. 12-inch steel riser next to concrete box with slide gates. Abandoned pump house on waterward side. Originally included in the 1968 O&M manual. FS Date: 9/19/2013					

Photo 2 of 2 : UCIP\_FA\_2016\_20873\_35145.jpg



Leak in pipe off LS toe.

LM Start	2.85	Rating **	M	Issue No.	948
LM End	2.85	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.640185 °	37.640185 °
				-121.230067 °	-121.230067 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:20874 DS_ID:20712 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Leak off LS toe may indicate internal failure. Good candidate for video inspection. FIELD_STRUCT_DESC: 2 of 2: 30-inch concrete pipe through levee 11.0 feet below crown. Pump on metal pier on waterside berm. 12-inch steel riser next to 6'X10.5' concrete box with Screw gate inside on waterward side. Abandoned Pump house on waterward side. Originally included in the 1968 O&M manual. FS Date: 9/19/2013					

Photo 1 of 2 : UCIP\_FA\_2016\_20874\_35151.jpg



Gatevalve in concrete vault with standpipe off WS toe.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	--	---	---

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2101 Blewett**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	3.16	09/20/2016 09/20/2016	Maksim Khashchuk

LM Start	2.85	Rating **	M	Issue No.	948 (cont)
LM End	2.85	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.640185 °	37.640185 °
				-121.230067 °	-121.230067 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:20874 DS_ID:20712 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Leak off LS toe may indicate internal failure. Good candidate for video inspection. FIELD_STRUCT_DESC: 2 of 2: 30-inch concrete pipe through levee 11.0 feet below crown. Pump on metal pier on waterside berm. 12-inch steel riser next to 6'X10.5' concrete box with Screw gate inside on waterward side. Abandoned Pump house on waterward side. Originally included in the 1968 O&M manual. FS Date: 9/19/2013					

Photo 2 of 2 : UCIP\_FA\_2016\_20874\_35150.jpg



Leak in pipe off LS toe.

LM Start	2.85	Rating **	A/W	Issue No.	34
LM End	2.85	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.640148 °	37.640148 °
				-121.230031 °	-121.230031 °
DWR ID	DWR_RD2101_01_f_2016_34				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					
LMA dragged the levee to remove unwanted vegetation.					

Photo 1 of 1 : FA\_2016\_RD2101\_326\_34\_20160926\_00043.jpg



View of the vegetation on levee crown.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	--	---	---

# Reclamation District No. 2101 Blewett



## Reclamation District No. 2101 Blewett

View of the ditch at the landside levee toe.

View of the spoils on the levee crown.

Numerous burrows present, some already caving in, others are active.

Page 19 of 19

**Flood Control Project Maintenance  
Levee Inspections**

**Unit Cover Sheet**

**Fall 2016 Levee Inspection Results**

**Reclamation District No. 2101 Blewett**

Waterway			Bank	Unit Miles
Unit No. 02 San Joaquin River (Spur Levee)			Right	0.30
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			<b>A</b>	
Date of Inspection	3/24/2016 - 3/24/2016		9/20/2016 - 9/20/2016	
DWR Inspector	Maksim Khashchuk		Maksim Khashchuk	
Accompanied By	Jim Coddington RD2101		Jim Coddington RD2101	

**Summer & Winter Inspections**

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

<http://cdec.water.ca.gov/lma.html>

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

*The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.*



**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2101 Blewett**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 San Joaquin River (Spur Levee)	Right	0.30	09/20/2016 09/20/2016	Maksim Khashchuk

LM Start	0.03	Rating **	A	Issue No.	1
LM End	0.29	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.660165 °	37.663866 °
				-121.243415 °	-121.242879 °
DWR ID	DWR_RD2101_02_f_2016_1				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					
LMA removed unwanted vegetation from levee slope.					

Photo 1 of 1 : FA\_2016\_RD2101\_327\_1\_20161117\_00002.jpg



View of the maintained waterside levee slope.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	---	---